

## ISYS1055/1057 Tutorial/Lab Sheet

### SQL Programming 4

Answer questions regarding the Rocky Concrete database. All SQL queries are in Oracle SQL\*Plus syntax. Where necessary run SQL queries in SQL\*Plus (use the `sqlrocky` command) to help you answer questions.

1. The following SQL queries have syntax errors. Find and fix the errors and then explain each corrected query in English.

(a)

```
select customers.cust_no
from customers C
where cust_no exists (
    select *
    from orders
    where orders.cust_no=C.cust_no)
/
```

(b)

```
select order_no, prod_cod, sum(order_price*order_qty)
from orders NATURAL JOIN order_details
where prod_group='C'
group by order_no
/
```

2. Write an SQL query to find the product with the highest `list_price`. Return the *prod\_cod* and *list\_price* of the product.

3. Write an SQL query to find the total value in dollars for each order. Output the *order\_no*, total value and *cust\_no* for each order.

4. The following query is intended to find the customers who have only ordered products in group 'C'. The query is logically incorrect, even though the output on the current table content is correct. Explain the problem with the query and give the correct SQL query.

```
select distinct cust_no
from orders, order_details
where orders.order_no=order_details.order_no
and prod_cod in (select prod_cod
    from products
    where prod_group='C')
/
```

5. Explain the following query in English.

```
select cust_no
from customers C1
where not exists (select *
from orders, order_details OD1
where orders.order_no=OD1.order_no
and orders.cust_no = C1.cust_no
and not exists ( select *
from products
where OD1.prod_cod = products.prod_cod
and products.prod_cod='STAND') )
/
```